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Applicant	: GIACOMETTI
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For	: METHOD AND DEVICE TO...
Art Unit	: 1745
Examiner	: Michael A. Tolin
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REPLY BRIEF

In response to the Examiner's Answer of April 6, 2011 Appellant hereby replies.

35 U.S.C. 103(a) rejection of claims 1, 5, 19, 23 and 24 in view of Giacometti (US 5,709,829) in view of either one of Schulz et al. (US 5,913,997) or Cruise et al. (US 5,874,159)

The Examiner's Answer takes the position that the prior art references of Schulz et al. and Cruise et al. provide motivation for preheating a web material prior to the web material contacting a first roller having protuberances for perforating the web material as claimed. Schulz et al. discloses bonding and stretching a web material and Cruise et al. discloses bonding fabrics together. Bonding and stretching a web material as featured in Schulz et al. and bonding fabrics together as featured in Cruise et al. are very different processes that take into consideration very different web material characteristics than those involved with

perforating a preheated web material as featured in the present invention. The process of bonding a web material as disclosed in Schulz et al. and Cruise et al. provides a much lower stress on the web material when compared to perforating the web material as featured in Giacometti and the present invention. As such, a person of ordinary skill in the art would not be directed toward the teachings of Schulz et al. and Cruise et al. as Schulz et al. and Cruise et al. disclose processes that are very different from perforating a web material as featured in Giacometti and the present invention.

The Examiner's Answer takes the position that a person of ordinary skill in the art would be directed toward the teachings of Cruise et al. since Cruise et al. teaches that preheating a web material prior to treatment between rollers at elevated temperature allows an increase in the speed of the manufacturing process because the rollers do not have to heat the web material from ambient temperature. However, Cruise et al. does not provide a treatment between rollers that is similar to the claimed perforation. There is no teaching or suggestion that would direct a person of ordinary skill in the art toward perforating the web material after it has been preheated as featured in the present invention. Cruise et al. merely discloses that the web material is heated so that each of the fabrics are bonded together. This does not provide any teaching or suggestion as to perforating the material after the material has been preheated. The Examiner's Answer does not reference a teaching that there is any particular benefit or advantage to perforating a preheated web material as featured in the present invention. This is particularly significant in that the present invention involves providing additional equipment, which involves additional cost and which likely increases the amount

of space taken up by the additional equipment. Cruise et al. only provides teachings that direct a person of ordinary skill in the art toward preheating one or more fabrics prior to the fabrics being bonded together. This does not provide any disclosure that would direct a person of ordinary skill in the art toward the advantages of preheating a web material before the web material is perforated as claimed. As such, a person of ordinary skill in the art would not be directed toward the disclosure of Cruise et al. as Cruise et al. does not provide any teaching or suggestion for perforating a preheated web material as claimed.

The Examiner's Answer acknowledges that Schulz et al. and Cruise et al. do not disclose benefits particular to perforation. The Examiner's Answer takes the position that the fact that Appellant has discovered additional benefits of preheating cannot be the basis for patentability because such benefits naturally flow from the suggestion of Schulz et al. and Cruise et al. to provide preheating prior to thermomechanical treatment of a web material (see page 15, lines 4-9 of the Examiner's Answer). Appellant respectfully disagrees with the Examiner's Answer's position that Schulz et al. and Cruise et al. disclose thermomechanically treating a web material that would somehow include perforating a preheated web material. The term "thermomechanical" is used in the Examiner's Answer to imply that Schulz et al. and Cruise et al. disclose perforating a preheated web material. However, the Examiner's Answer's use of the term "thermomechanical" is overly broad manner and is inconsistent with a fair reading of Schulz et al. and Cruise et al. Schulz et al. and Cruise et al. do not disclose thermomechanically treating a web material that includes perforating a preheated web material as claimed. Schulz et al. and Cruise et al. only disclose bonding two fabrics together with the

use of rollers. Although Schulz et al. and Cruise et al. disclose that the fabrics can be preheated prior to bonding of the fabrics, the bonding process is completely different than perforating a preheated web material as featured in the present invention.

A person of ordinary skill in the art would not be directed toward the teachings of Schulz et al. Schulz et al. is concerned with a completely different problem than of Giacometti and the present invention. Instead of being concerned with perforating a web material as featured in Giacometti and the present invention, Schulz et al. is merely concerned with passing a fleece web 5 through a thermal treatment station 3 wherein the heated fleece web 5 is passed through bonding rolls 7 so that the heated fleece web 5 is stretched. This does not provide any teaching or suggestion as to perforating a preheated web material as claimed. Schulz et al. does not provide any teaching or suggestion that would direct a person of ordinary skill in the art toward the advantages associated with perforating a preheated web material as featured in the present invention. Appellant's invention addresses the problem of increasing the production rate of web material while maintaining sufficient stay time of the web material so that the web material can be properly perforated. Appellant's invention has solved this problem by preheating the web material prior to perforation of the material. Preheating the web material prior to perforation of the web material advantageously allows more time to obtain perforation of the web material. Further, the preheating of the web material advantageously reduces the bending stresses induced on the protuberances of the first roller so that the height of the protuberances can be increased. Schulz et al. fails to be concerned with increasing the stay time of a web material so that the web material can be properly perforated

as featured in the present invention. Schulz et al. is concerned with a totally different problem than that of the present invention. Instead of being concerned with increasing the stay time of a web material during perforation as provided in the present invention, Schulz et al. only discloses preheating a web material so that the web material can be more easily stretched. This does not provide any teaching or suggestion that would direct a person of ordinary skill in the art toward preheating a web material prior to perforation of the web material as claimed.

A person of ordinary skill in the art would not be directed toward the teachings of Schulz et al. and Cruise et al. since the teachings of Schulz et al. and Cruise et al. are inconsistent with the teachings of Giacometti. Giacometti discloses that it is essential that the rollers rotate at different speeds. This is inconsistent with the teachings of Schulz et al. and Cruise et al. Schulz et al. is concerned with passing a preheated fleece web through bond rolls and Cruise et al. is concerned with bonding two fabrics by passing the fabrics between rollers. The Examiner's Answer takes the position that there is no explicit language in either Schulz et al. or Cruise et al. that the rollers rotate at the same speed. However, a person of ordinary skill in the art would understand that the bonding process of Cruise et al. and the passing of the fleece web through bond rolls as featured in Schulz et al. require that the rolls rotate at the same speed so that uniform pressure is applied to the fleece web and fabrics. A constant rotational speed of the rolls in Cruise et al. and Schulz et al. is necessary to prevent slippage between the rolls and to apply uniform pressure to the web material so that the web material has a uniform thickness. A person of ordinary skill in the art would not be directed toward the teachings of Cruise et al. and Schulz et al. since the disclosure of Cruise et al. and Schulz et

al. is inconsistent with the teachings of Giacometti. As such, the rejection does not establish a prima facie case of obviousness as the prior art as a whole does not direct a person of ordinary skill in the art toward essential features of the claimed combination. Accordingly, Appellant respectfully requests that the rejection be reversed with respect to claim 1 and all claims that respectively depend thereon.

35 U.S.C. 103(a) rejection of claims 2, 4 and 38 in view of Giacometti in view of either one of Schulz et al. or Cruise et al., and further in view of Majors et al. (US 5,704,101)

As previously discussed above, a person of ordinary skill in the art would not be directed toward the teachings of Schulz et al. and Cruise et al. in view of the teachings of Giacometti as Schulz et al. and Cruise et al. are not concerned with the problems associated with perforating a preheated web material and the references do not provide any teaching or suggestion for perforating a preheated web material as claimed, which said arguments are incorporated in their entirety herein by reference. As noted in the Examiner's Answer, Giacometti, Schulz et al. and Cruise et al. do not teach or suggest perforating a preheated web material such that the web material has protuberances with a height between 0.2 and 3 mm. or between 0.5 and 1.2 mm. as claimed. The Examiner's Answer relies on Majors et al. to support the position that it would be obvious to provide the claimed height ranges of the protuberances. However, Majors et al. only provides teachings as to aperturing films and fibrous nonwovens that have not been preheated. Providing a non-heated web with apertures as featured in Majors et al. is a completely different process than that of perforating a preheated

web material. Majors et al. does not provide any teaching or suggestion that the range of the height of the protuberances of 0.25 mm. and 1.1 mm. can be achieved with a preheated web material as featured in the present invention. The properties and characteristics of a preheated web material as featured in the present invention are very different than those associated with a non-heated web material as featured in Majors et al. As such, Majors et al. does not provide any teaching or suggestion for claimed range of the height of the protuberances as recited in claims 2, 4 and 38.

A person of ordinary skill in the art would not be directed toward the teachings of Majors et al. in view of the teachings of Giacometti. Giacometti discloses that it is essential that the studded cylinder rotates at a peripheral speed that is greater than the peripheral speed of the smooth cylinder. This is inconsistent with the teachings of Majors et al. Majors et al. discloses that it is essential that the anvil roll (smooth cylinder) 24 has a peripheral speed that is greater than a peripheral speed of the patterned roll (studded cylinder) 22. As such, a person of ordinary skill in the art would not be directed toward the teachings of Majors et al. since the teachings of Majors et al. are in direct conflict with the disclosure of Giacometti. As such, the rejection does not establish a prima facie case of obviousness as the prior art as a whole does not direct a person of ordinary skill in the art toward essential features of the claimed combination. Accordingly, it is respectfully requested that the rejection with respect to claims 2, 4 and 38 be reversed.

35 U.S.C. 103(a) rejection of claims 6 and 10-14 in view of Giacometti in view of either one

of Schulz et al. or Cruise et al., and further in view of Dettmer et al. (US 6,395,211 B1)

The Examiner's Answer takes the position that Giacometti explicitly recites that a peripheral speed of a second roller may be between 50% and 100% of a peripheral speed of a first roller as claimed in claim 14 since Giacometti teaches that the rate of slippage may be 10-50%. The Examiner's Answer further takes the position that a 10% rate of slippage corresponds to the second roller having a peripheral speed about 90% that of the first roller. However, there is no teaching or suggestion in Giacometti that the percentage of slippage corresponds to the exact differences in speed of the first roller and the second roller. Giacometti merely discloses that the speeds of the first roller and second roller can vary, which varies the slipping between the surfaces of the rollers. This does not provide any teaching or suggestion as to a specific correlation of the speeds of the rollers as claimed in claim 14. The claimed percentage range of claim 14 advantageously allows optimal perforation of the preheated web material. Giacometti fails to teach or suggest such optimal perforation advantages since Giacometti does not provide any teaching or suggestion that would direct a person of ordinary skill in the art toward a second roller being between 50% and 100% of a speed of a first roller as claimed. As such, the rejection does not establish a prima facie case of obviousness as the prior art as a whole does not direct a person of ordinary skill in the art toward essential features of the claimed combination. Accordingly, it is respectfully requested that the rejection with respect to claim 14 be reversed.

Conclusion

The invention as claimed presents a combination of features which is neither taught nor suggested by the prior art. The claimed invention should be considered patentable and not obvious by the cited prior art references as the cited prior art references as a whole fail to establish a prima facie case of obviousness. Accordingly, it is requested that the rejections of the claims be reversed.

As to the other points raised in the Examiner's Answer these are already addressed in Appellant's Appeal Brief of February 2, 2011.

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